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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,963	10/03/2003	Arne Berg	WEAT/0459	7311

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EXAMINER

NEUDER, WILLIAM P

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,963

Applicant(s)

BERG ET AL.

Examiner

William P. Neuder

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-21 and 23-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,12-20 and 39-57 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-9,11,21,23,25,27-29 and 31 is/are rejected.
- 7) ☒ Claim(s) 4,6,24,26,30 and 32-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,3,5,7-9,11,21,23,25,27-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coates et al (applied in previous office action) in view of Nutt et al 2003/0179651.

Coates discloses an apparatus for acoustically coupling a sensor system to a well casing. A body 22 is attached or coupled to a wireline deployment member. Biasing means 221 displace the sensor towards the casing. A releasing mechanism (see col. 4, lines 47-54) actuates or allows the biasing means 221 to displace the sensor. As to claims 3 and 21, the body is attached to the wireline and therefore an attachment mechanism must be present. As to claims 5 and 25, the sensor 23 is placed in a carrier (unnumbered). The springs 221 bias the carrier. As to claims 7 and 27, since the sensor is encased within the carrier, first and second components of the carrier are defined on either side of the sensor. As to claims 8 and 28, the springs 221 bias each of the components. As to claims 9 and 29, the carrier components are on opposite ends of the sensor. The sensors are geophones. As to claims 11 and 31, the biasing members are springs. As to claim 21, the anchoring section actuates the biasing members. Coates is considered to disclose all of the claimed features except for the sensor being an optic sensor. Nutt et al teaches that it is known to use fiber optic geophones in wellbore study. It would have been obvious to use fiber optic geophones in the device of Coates as taught by Nutt since any known geophone used in borehole study could be substituted for any other geophone since they are equivalent parts for performing equivalent functions.

Claims 1,3,5,7-9,11,21,23,25,27-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coates et al (applied above) in view of Pearce et al 20020097637.

Coates discloses an apparatus for acoustically coupling a sensor system to a well casing. A body 22 is attached or coupled to a wireline deployment member. Biasing means 221 displace the sensor towards the casing. A releasing mechanism (see col. 4, lines 47-54) actuates or allows the biasing means 221 to displace the sensor. As to claims 3 and 21, the body is attached to the wireline and therefore an attachment mechanism must be present. As to claims 5 and 25, the sensor 23 is placed in a carrier (unnumbered). The springs 221 bias the carrier. As to claims 7 and 27, since the sensor is encased within the carrier, first and second components of the carrier are defined on either side of the sensor. As to claims 8 and 28, the springs 221 bias each of the components. As to claims 9 and 29, the carrier Coates discloses an apparatus for acoustically coupling a sensor system to a well casing. As to claims 11 and 31, the biasing members are springs. As to claim 21, the anchoring section actuates the biasing members. Coates is considered to disclose all of the claimed features except for the sensor being an optic sensor. Pearce teaches that it is known to substitute fiber optic sensors (fig. 17) for geophones in a wellbore. It would have been considered obvious to replace the geophones of Coates with fiber optic sensors as taught by Pearce et al in view of Pearce's teaching that geophones and fiber optic sensors are equivalent parts for performing equivalent functions.

Claims 1,3,11,21,23 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blacklaw GB 2311796 (applied in previous office action) in view of Nutt et al 20030179651.

Blacklaw discloses an apparatus for coupling a sensor system to a wellbore casing. Body 4 is coupled to deployment means 2. A sensor 1 is positioned within the body. Biasing means 6 biases the sensor towards the casing. A release mechanism (hydraulic delay, see page 8, lines 1-4) actuates the biasing means. As to claims 3 and 23, means 5 couple the body to the deployment means. As to claims 11 and 31, the biasing means are springs. As to claim 21, the hydraulic delay is the means for actuating the biasing means. Blacklaw is considered to disclose all of the claimed features except for the sensor being an optical based sensor. Nutt teaches that fiber optic geophones are known. It would have been considered obvious to substitute a fiber optic geophone for the sensor of Blacklaw since they are equivalent parts for performing equivalent functions.

Claims 1,3,11,21,23 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blacklaw (described above) in view of Pearce et al 2002/0097637.

Blacklaw discloses an apparatus for coupling a sensor system to a wellbore casing. Body 4 is coupled to deployment means 2. A sensor 1 is positioned within the body. Biasing means 6 biases the sensor towards the casing. A release mechanism (hydraulic delay, see page 8, lines 1-4) actuates the biasing means. As to claims 3 and 23, means 5 couple the body to the deployment means. As to claims 11 and 31, the biasing means are springs. As to claim 21, the hydraulic delay is the means for

actuating the biasing means. Blacklaw is considered to disclose all of the claimed features except for the sensor being an optical based sensor. Pearce teaches that it is known to substitute fiber optic sensors (fig. 17) for regular sensors. It would have been considered obvious to replace the sensors of Blacklaw with fiber optic sensors as taught by peace in view of Pearce's teaching that they are equivalent parts for performing equivalent functions.

Allowable Subject Matter

Claims 4,6,24,26,30 and 32-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10,12-20 and 39-57 are allowed.

Response to Arguments

Applicant's arguments with respect to claims 1,3,5,7-9,11,21,23,25,27-29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William P Neuder
Primary Examiner
Art Unit 3672

W.P.N.